

Appl. No. : 10/023,275
Filed : Dec 13 2001

REMARKS

Applicant wishes to thank Examiner Weber for the courtesy extended to the representative, Nancy Vensko, attorney of record, on June 30, 2004. The Interview Summary Form PTOL-413 presumably summarizes the discussions held at the personal interview. The present response to the outstanding Office Action includes the substance of the Examiner Interview.

A. Disposition of Application

Claims 6 and 15-17 are pending in the application. Claims 5 and 7-14 have been canceled as being drawn to non-elected subject matter. Claims 1-4 have been canceled, Claim 6 has been amended, and Claims 15-17 have been added to better describe the claimed invention. Thus the amendment is made for reasons unrelated to patentability. Support for the amendment is found throughout the Specification, for example, as discussed below. The Specification has been amended to correct minor editorial problems; support is found in the priority document(s). Under MPEP 608.01, the Specification has additionally been amended to delete the embedded hyperlink. No new matter is being added herewith.

B. Compliance with 35 USC 103(a)

According to the Specification, a preferred embodiment is related to the discovery of a novel yet essential role for the TGase I enzyme to attach ceramides. Spec. at 35:11-12. The amendment is supported throughout the Specification, for example, as indicated below in the Support Chart.

Support Chart

Claim	Support in Specification
6	10:12-14
15	14:5-15:2
16	14:23-26
17	22:23-23:7

The Patent Office rejected Claim 6 (the other rejections having been rendered moot by the cancellation of Claims 1-4) under 35 USC 103(a) as being unpatentable over Lai et al. 1997 J. Biol. Chem. 272: 16295-16300, USP 6,274,364 to Bernard et al., USP 6,165,500 to Cevc et al.,

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USP 5,525,336 to Green et al., Steinert et al. 1998 J. Biol. Chem. 273: 11758-11769, and WO 93/22281 to Crawford et al.

Under MPEP 2142 and 2143, a case of prima facie obviousness requires that all the elements of the claimed invention are present in one or more prior art references and there is a suggestion or motivation to combine reference teachings. Here, a case of prima facie obviousness fails because there is no suggestion or motivation to combine reference teachings. Lai et al., Bernard et al., Cevc et al., and Green et al., all describe combinations of TGase and various lipid vehicles. Steinert et al. describes at Fig. 5 a model of the skin showing how the various skin proteins are crosslinked by transglutaminase. Crawford et al. describes synthesis of omega-hydroxy fatty acid containing ceramides. There is no suggestion or motivation to combine reference teachings, because the pending claims are related to the discovery of a novel yet essential role for the TGase I enzyme to attach ceramides to proteins. Spec. at 35:11-12. In the absence of the discovery, there is no suggestion or motivation to combine an analog of an omega-hydroxyceramide, just because it comprises the skin (Spec. at 2:3-4), with a combination of TGase and a synthetic lipid vesicle. This is because it was unknown that TGase I enzyme could attach the omega-hydroxyceramide to the various skin proteins for use in treatment of the skin.

Under MPEP 2142, a prima facie case of obviousness may be rebutted by a showing of unexpected results. Here, the counterargument to a case of prima facie obviousness is the unexpected advantage that results from the combination of an analog of an omega-hydroxyceramide with TGase and a synthetic lipid vesicle. Even if one were to combine an analog of an omega-hydroxyceramide, just because it comprises the skin (Spec. at 2:3-4), with a combination of TGase and a synthetic lipid vesicle, an unexpected advantage results due to the discovery of a novel yet essential role for the TGase I enzyme. The TGase I enzyme attaches ceramides to proteins. Consequently, the combination of an analog of an omega-hydroxyceramide with TGase and a synthetic lipid vesicle results in the unexpected advantage of attaching the omega-hydroxyceramide to the various skin proteins for use in treatment of the skin.

For the reasons that a case of prima facie obviousness fails and a prima facie case of obviousness is improper in the face of unexpected results, the pending claims are in compliance with 35 USC 103(a).

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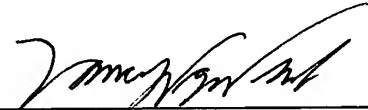
CONCLUSION

In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of all outstanding rejections are respectfully requested. Allowance of the claims at an early date is solicited. If any points remain that can be resolved by telephone, the Examiner is invited to contact the undersigned at the below-given telephone number.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 7/2/04

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